THE MARINE RECORD.

DEVOTED TO COMMERCE, ENGINEERING AND SCIENCE.

VOL. VII. NO. 8. CLEVELAND. O., FEBRUARY 19. 1885. $2.00 PER ANNUM SINGLE COPIES 5 CENTS

AROUND THE LAKES.

CLEVELAND.

Captain Thomas Maytham, of Buffalo, visited this city last Tuesday.

Captain James Bowen, of the tug Selah Chamberlain, was here from Lorain on Monday.

H. D. Root, shipbuilder, of Lorain, was in the city last week. He is building a fishing tug at Vermillion.

Captain Vader, of Lorain, was in this city last Thursday. His leg, which was broken last fall, is improving slowly.

W. H. Radcliffe, shipbuilder, has been sick for five weeks. His many friends will be glad to hear that he is around again.

A number of Cleveland ship carpenters and calkers have gone to Erie to work on the Anchor Line boats, in winter quarters at that port.

The schooner Theodore Voges, owned by John Watson, has received new bulwarks all around, new forecastle deck, new fenders over all her chain plates, and calking from low water mark up.

W. J. Parker, shipjoiner, will build the cabin on the Globe Shipbuilding Company's new steamship. He has got everything out ready to put up, and will next week commence to place it upon her.

The Treasury Department has notified collectors of customs at ports on the northern frontier that as the services of the deputy collector of customs at Fremont, Ohio, has been discontinued, vessels with cargoes which are destined to Fremont will have to enter and clear at Sandusky.

W. H. Radcliffe, shipbuilder, has done repairs on the schooner James Couch to the amount of about $800, comprising some fifty new stanchions and about 150 feet of new rail and plankshear and other necessary repairs. He has also done some repairs on the steamer Good Hit to the extent of about $100.

V. D. Nickerson, marine artist, has completed six pictures of the wrecking tug Gladiator, for S. A. Murphy, Detroit. Two of the pictures have been sent to Buffalo, one to L. Dimick, and the other to Smith & Davis, marine insurance and vessel agents. The remaining four will be sent to marine insurance and vessel agents in Detroit.

Captain Chas. Hutchinson, of the Emma C. Hutchinson, is the youngest captain on the lakes, he being twenty-three years last birthday, and has been master of that schooner since he came of age. The Sunday Voice, about two or three weeks ago, stated that Captain Pringle, of Cleveland, was the youngest. He is twenty-five or twenty-six.

The barge Alice Strong, owned by William Hendrickson, will be rebuilt. The Vulcan Iron Works will supply her with a new high pressure engine 14x16. The barge has been used for carrying stone to the new breakwater for the past three seasons. When rebuilt she will tow the scow Lafayette, and both will go into the sand trade.

The Globe shipbuilding Company are hastening the completion of the new iron steamship building at their yard. Some 165 men are working on her. Nearly all the outside plating has been put on, the beams are all in and everything riveted up. The laying of her wooden deck will be commenced at once. The machinery and spars are already to be placed in her, and, weather permitting, she will be launched about the middle of March.

It was announced in the MARINE RECORD three weeks ago that a new line of steamers would be established between Green Bay and Buffalo. It now transpires that the line will be under the management of Mr. Eber Ward, of Detroit, that the steamers will touch at this port, and that Captain J. W. Brett will be the Cleveland agent of the line. The names of the boats to be put on the route have not yet been made public. It is thought that the boats will be run in the interest of the Green Bay, Winona & St. Paul and the Lackawanna railroads. By reference to another column it will be seen that the Lackawanna has been restrained by Colonel Maguire, United States engineer at Buffalo, from extending their docks at that port. The last regular boats on the Green Bay and Buffalo route, the Passaic and Canisteo, under the management of the Union Line, generally serured good cargoes, and previous to that time a line was run by Dean Richmond, the Rocket and Comet, under the management of S. D. Dole, which was discontinued after the failure of Mr. Dole.

Alva Bradley's fleet of vessels, laid up at this port, are being put in thorough good shape. J. and N. Cook, ship carpenters, are making the barge Sandusky into a double-decker. The stanchions, 12 feet long and 6x7 inches thick, have been placed four feet down into the old work, and are bolted and spiked. The first strake of her outside plank will be four inches thick, cross-fastened with ¾-inch iron bolts. There will be eight 3-inch strakes, and two on the top 4 inches thick, notched in. The inside plank will be 2½ inches thick; her bulwarks will be two feet high, with 3x8 rail. She will be 6 feet 6 inches between decks. Below all the cants will be taken out forward and aft, and she will get new ceiling forward and aft. She has been refastened with two spikes in every frame from light water mark up. Her centerboard box will be taken out and raised to the upper deck. She will get a new stem and new knightheads, three new masts and a new bowsprit. These improvements will increase her carrying capacity about 200 tons. Messrs. Marshall & McHolland, ship carpenters, are putting a new deck and new hatch combings on the schooner John Martin, and new lower hatch beams and new decks on the steambarge Chamberlain. Messrs. Thomas & Son, ship carpenters, are giving the steambarge Superior some new arches. The schooner S. J. Tilden has received all new floor ceiling five inches thick. All the fleet will be calked. Captain Stone is superintending the whole of the work.

GRAND HAVEN.

The steamers Wisconsin and Michigan are out in the lake. The Oneida is in this port. The Wisconsin was in sight at noon, but put back, probably for the west shore. The Michigan has not been heard of since Monday, and much anxiety is felt for her safety. West winds have again fastened the ice to this shore, making navigation impossible until an east wind drives the ice into the lake.

Up to the 16th no word has been received from the missing propeller Michigan which has been out an entire week with a crew of twenty four men on board. She has provisions for three weeks and the crew will not suffer severely if the vessel is merely ice-locked. The propeller Wisconsin is in the ice six miles off the shore. The ice in the lake is driven to this side by winds.

CHICAGO.

Special to the Marine Record.

Mr. Hugh MacMillan, who has been for many years connected with the Western Transit Company as assistant agent, has been given entire control of the Western branch of the company. On the close of navigation in the fall, when it was understood Mr. MacMillan had severed his connection with the company, a number of gentlemen on 'Change presented Mr. MacMillan a handsome gold watch.

The suit of the Lizzie Law vs. the schooner R. B. Hayes has been decided in favor of the Law.

A very excellent picture of the wrecking tug T. T. Morford, by V. D. Nickerson of Cleveland, has been received by J. S. Dunham, the tug is represented in a moonlight scene, with a three mast schooner in the distance ahead showing her starboard light, a lighthouse is also seen a long distance astern of the tug from which a bright light is shining. The tug is lighted up and the shade of her lights are thrown on the water. It is indeed a splendid picture of the tug and it has been pronounced as such by a large number of vessel men who have called at Mr. Dunham's office to see it. Mr. Dunham is greatly pleased with it and pronounces it the nicest picture of a tug he ever saw.

GRAND HAVEN.

Special to the Marine Record.

The propeller Michigan, which has been missing for the past ten days, was heard from. The boat is surrounded in thick ice seven miles off Saugatuck and twenty miles south of Grand Haven. Seventeen of her crew walked ashore at Grand Haven yesterday. In order to save provisions they were sent ashore. There is an abundance of fuel and provisions for those left on the boat, and with milder weather her release will be easily accomplished.

LORAIN.

Special to the Marine Record

The schooner John Tibbits is getting a rebuild.

The schooner J. N. Foster is getting new covering board, stanchions and rail.

The steambarge Robert Wallace is being recalked.

The scow J. U. Porter is getting a general overhauling.

The C. L & W. R. R. are building a new dock about 300 feet in length.

The schooner J. R. Pelton is getting new decks, deck frames, hatch combings, covering board stanchions and rail.

PORT ARTHUR.

The Sentinel says the C. P. R. steamers Algoma and Athabasca have had their decks calked and other repairs made, and work is progressing on the Alberta. They will come out in fine shape next spring. Captain Moore is overseeing the work in the absence of Mr. Henry Beatty.

ROCKFORD.

The steam piledriver belonging to the Grand Rapids and Indiana railroad, at work a mile south of here, blew up on the 13th, severely injuring Truman Proper, the engineer, and completely wrecking the driver. Cause unknown.

KENOSHA.

The steamer Depere, of the Goodrich line, met heavy ice off here, and came inside. She will stay until the ice opens, when she will try to make Chicago.

VERMILLION.

The schooners Fred Morris, Stalker and Fitz Hugh are getting a rebuild at this port.

MILWAUKEE.

Special to the Marine Record.

The weather here continues to be very cold, and the only arrivals are the Depere and the railroad company propellers.

The tug John Everson has been busy for the last three days, breaking the ice and towing the schooner Georger from the St. Paul warehouse to Smith's elevator. There has been no boat up that branch of the river since the close of navigation, and the ice was two feet thick in some places. It required two days of hard pulling to get the schooner out of the slip into the main river, where, on the third day, she was placed alongside of the elevator.

The extensive repairs which have been doing on the tug Welcome's boiler were completed on last Thursday, and her boiler was once more filled with water, and a steam test put on it, which proved very satisfactory.

The schooner Goshawk has completed her repairs at Wolf & Davidson's yard, and is waiting for a warm spell to come, when she will be once more floated.

The schooner Trumpff is also nearing completion, and will soon be ready to slide into the water.

The calkers' strike is at an end. They went back at the old figures of $1,75 for eight hours' work.

The Nahant has very nearly completed her repairs, also the Itasca.

Considerable apprehension is felt here, in regard to the fate of the propeller Michigan, which left Grand Haven early last Monday morning to search for the Oneida. The Michigan left in company with the Wisconsin, the latter being bound for this port. The boats parted company in the afternoon, the Michigan heading north. The officers of the Detroit and Milwaukee Line here scout the theory that the Michigan was lost during the terrible Monday night and Tuesday morning gale. They argue that Captain Prindiville, who is acknowledged to be a very careful navigator, must surely have anticipated the storm and ran for the ice at the northern part of the lake, and that she has been unable to extricate herself.

Captain Oscar Greenhalgh, who has been in command of the tug John Evenson since she came out, left here for the World's Fair on Saturday, the 14th inst., where he will remain for two weeks. X. Y.

KINGSTON.

Captains Dick and Harbottle, government inspectors of steamboats, at Toronto, have offered their services to the English Government in the Egyptian campaign. They proposed to raise a regiment of from eight hundred to one thousand men.

Messrs. Black & Co., Brockville, are now busily engaged in building the boilers and engines for three new steam yachts, one of which is for Mr. Davis, of Kingston, and the others for John Ryan, Brockville, and Captain Davis, Gananoque.

MANITOWOC.

The steambarge Daisy Day came in Saturday and went above the bridge to Conway's warehouse. It took a long time to get the bridge open.

One half of the barges Rube Richards and May Richards and two thirds of the schooner H. C. Richards are advertised for sale.

BUFFALO.

Captain Henry Carr, of Maytham's tug line, one of the oldest tug masters at this port, died here of erysipelas on the 13th, aged 50 years.

MARITIME LAW.

THE J. F. WARNER—ADMIRALTY JURISDICTION—CONTRACT FOR AFFREIGHTMENT—LIBEL IN REM FOR BREACH.

District Court E. D. Michigan, February 5. 1883.

An admiralty.

This was a libel for breach of a contract of affreightment made at Buffalo New York, July 31, 1879, between the libelant, Bewick, and respondent Walker, then master and part owner of the barge J. F. Warner. The libel was *in rem* against the barge and *in personam* against her owners. The libel set forth that on July 31, 1879, Bewick chartered the barge Warner to go from Buffalo, to Alpena and transport a cargo of 340,000 feet of lumber, at $1.50 per thousand, which she was to deliver at Buffalo; that the charter was verbal and never reduced to writing; and that said barge Warner having, as libelant was informed, a better offer, failed to perform her charter, and by reason thereof libelant suffered damages in the sum of $680, which damages are a lien upon said barge, both by the general maritime law and the law of this state. The answer denied that any contractor charter party was made to transport this lumber from Alpena to Buffalo. The fourth article alleged that Bewick made a proposition to the master of the barge which was accepted, namely, that said barge should be placed in tow of the propeller Alpena, then about to leave for the ports of Bay City and Saginaw; that by the proposition of said Bewick the said propeller Alpena was to take said barge across Saginaw bay to Au Sable, where, if the wind should be favorable for the barge to run to Alpena, she was to go by sail, and receive and take on board a cargo of lumber and transport the same to Buffalo, and was to receive freight, according to the custom and understanding, at Bay City rates; that if the wind was not favorable for said barge to run to Alpena, from Au Sable, the said propeller Alpena was to tow her there or see that she got there. It further alleged the taking of the barge in tow for Alpena in pursuance of this proposition and its acceptance; that the wind, on the arrival of the tow near the Charity islands, was to the westward and north of west; the failure of the propeller to come to or aid the barge to go to Au Sable, but she proceeded on her way to Bay City without casting off her line or making any signal or request whatever; that as the wind then was the barge was unable to reach either Au Sable or Alpena, and it was unsafe to cast off her line as the wind then was on Saginaw bay.

Respondents in their answer set up, as a further matter of defense, exceptions to the libel upon the following grounds: (1) That a joint suit against the barge and her owners cannot be maintained; (2) that no cargo having been taken on board a suit will not lie against the barge *in rem*.

H. H. Swan, for libelant.

Wm. A. Moore, for respondents.

Brown, J. Proceeding to dispose of the preliminary questions raised upon the exceptions to the libel, I am asked to determine:

1. Whether a joint suit can be maintained against the barge *in rem* and her owners *in personam*. General admiralty rules 12 to 20, enacted in pursuance of an act of congress, and having the force of law, defined with much particularity the remedies to which the injured party is entitled in the most numerous classes of cases arising in courts of admiralty, but as no mention is made in any of these rules of suits upon contracts of affreightment, I am compelled to dispose of the question as one dependent upon the practice of the admiralty courts in that particular class of cases. The rules afford us no guide in suits of this description. In determining what the proper practice ought to be, we look to ascertain what the practice has been in analogous cases in other districts. There is certainly nothing in the rules excluding the joinder of the Warner and her owners, nor do I see that there is any principle, of law violated. It is an elementary rule that the master of a vessel may bind both the vessel and her owners by contracts made within the scope of his authority and if both are bound I see no reason in principle, why both may not be pursued in the same action. Precedents, however, are not wholly wanting. Thus, in the case of Vaughan v. 630 Casks of Sherry, 7 Ben. 507, which was a libel against a cargo and its consignees for freight, Judge Blatchford held that, as the cause of action arose out of a contract which, if the respondents were liable upon it also bound the property and as the respondents claimed the property, there was no reason for not joining a cause of action against the property *in rem* with one against the respondents *in presonam*. This case was affirmed upon appeal by Mr. Chief Justice Waite in 14 Blatchf. 517. A similar ruling was made by Judge Betts in the case of the Zenobia, Abb. Adm. 48, which was also a libel *in rem* against a bark and *in personam* against her master to remove damages for non-performance of a contract of affreightment. I see no reason for joining the master which would not apply with equal force to the owner. In deciding this question, Judge Betts noticed that the rules of the supreme court did not provide for libels of this description, and neither authorized nor forbid the joinder. "The consequence is that such cases fall within the scope of rule 46, which prescribes that in all cases not provided for by the foregoing rules the district and circuit courts are to regulate the practice of those courts, respectively, in such manner as they shall deem most expedient for the administration of justice. The practice in respect to the question under consideration is therefore left to be regulated at the discretion of the courts in the various districts." In other cases in the same district the same principle has been approved. The Aldebaran, Olc. 130; the Merchant, Abb. Adm. 6; the Monte A. 12 Fed. Rep. 336; Betts, Adm. Pr. 20.

In the Clatsop Chief, 8 Fed. Rep. 164, the learned judge of the district of Oregon expressed the opinion that, in the absence of general admiralty rule 15, a suit for damages for collision might be sustained against the vessel and her owner, and approves the practice in New York. There is nothing in the case of the Sabine, 101 U. S. 384, which would prevent such joinder in a libel upon a contract of affreightment. This was a suit for salvage, and the supreme court held that it would not lie against the vessel and the consignees of her cargo. Indeed, the court could not have held otherwise without disregarding the nineteenth general admiralty rule. No opinion, however, was expressed in that case with reference to suits not embraced in these rules. As the practice in New York upon this subject is entirely well settled, (see Betts, Adm. Pr. 20; Ben. Adm. Pr. 526; Bump, Fed. Proc. 851,) as well as the cases above cited, and as my attention has not been called to any other cases which hold that such practice is not a proper one, except that of the Alida, 12 Fed. Rep. 343, and as it is in the intrests of speedy justice, I am not disposed to sustain this exception.

2. The next objection raised by the answer is that this court has no jurisdiction either *in rem* or *in presonam* of the matters set forth in the lible. That there is no lien upon this vessel by the general maritime law, follows from the opinion of this court in the case of Scott v. the Ira Chaffee, 2 Fed. Rep. 401 in which I had occasion to hold that the owner of a cargo has no lien upon the vessel for the breach of a contract of affreightment until the cargo or some portion has been laden on board or delivered to the master. The William Fletcher, 8 Ben. 537. See, also, the Prince Leopold, 9 Fed. Rep. 333; the Monte A. 12 Feb. Red. 336 Libelant, however, claims a lien under the laws of this state, which provided that "every water craft of above five tons burden * * * shall be subjected to a lien * * * (4.) for all damages arising from the non-performance of any contract of affreightment, or of any contract touching the transportation of persons entered into by the master, owner, agent, or consignees of such water craft where such contract is to be or shall have been performed, in whole or in part, within this state." There can be no doubt that a contract of affreightment is a maritime contract, although, by the maritime law, no lien arises upon the vessel until the cargo or some portion of it has been delivered on board or into the custody of the master. The character of the contract itself is fixed at the time it is entered into, and it is no less maritime in its nature at that moment than when the delivery of the cargo begins. The words "is to be" performed clearly contemplate a performance in the future. Although purely executory, the court of admiralty has jurisdiction *in personam*. Maury v. Culliford, 10 Fed. Rep. 388, Oakes v. Richardson, 2 Low. 178; Rich v. Parrott 1 Cliff. 55; Morwood Enequist, 23 How. 493. Nor is there any doubt in my mind that if the contract be maritime, and therefore cognizable in the court of admiralty the state legislature may annex to it a lien upon the vessel which can be enforced by this court. It is doubtless true as said in Edwards v. Elliott, 21 Wall. 532, that state legislatures have no authority to create a maritime lien, nor can they confer any jurisdiction upon a state court to enforce such a lien by a suit or proceeding *in rem*, as practiced in the admiralty courts. See, also, the Belfast, 7 Wall. 644; the Moses Taylor, 4 Wall 411; the Hine v. Trevor, Id. 555. But we are not speaking of maritime liens or of enforcing such liens in state courts. Granted that the contract is maritime in its which nature, the power of a state to attach a lien may be enforced here is beyond question. Thus in Exparte McNiel, 13 Wall. 236, a state law conferring a lien for pilotage was enforced: So in the Lottawanna, 21 Wall. 580, it was held that a state law might give a lien enforcible *in rem* in the admiralty for materials and supplies furnished in the home port of the vessel, although no such lien existed by the law maritime. In the Virginia Rulon, 13 Blatchf. 519, a suit *in rem* was sustained for wharfage, although it was supposed at that time that no such lien existed by maritime law. So in the case of the Garland, 5 Fed. Rep. 927, this court sanctioned the right of an administrator to proceed *in rem* for the recovery of damages under the laws of this state for negligence causing the death of the intestate, upon the ground that the state statute gave the right of action which the court might enforce by appropriate proceedings of its own. See, also Taylor v. the Robert Campbell, 20 Mo. 258. The objection made by claimant, that the legislature of this state has no power to legislate with respect to contracts made in other states, is untenable. The contract in this case, though made in Buffalo, was to be performed, partly at least within this state. While contracts are ordinarily interpeted by the laws of the state wherein they are made, there is an exception equally well recognized in cases of contracts made in one state to be performed in another. The laws of the latter state govern not only the interpretation of the contract but the remedies for its enforcement. Story, Confl. Laws § 280. The legislature evidently did not transcend its power in attaching a lien to a contract to be performed within this state.

Coming now to the merits of the case, the principal dispute arises from the contract itself. Libelant's testimony tends to show that Bewick met the master of the barge in Buffalo, and told him that he could sell some lumber to Holmes & Co., of that place, provided the barge would carry it, and that he wished him to bring it down from that place; that if the wind was unfavorable he would tow the barge as far into Saginaw bay as he could before changing his course to Bay City, and leave her there, where she was to lie until the wind changed, and she could proceed under sail or could take a tug herself to Alpena; and that if she found no means of reaching Alpena before the Alpena left Bay City for Chicago he would again take the barge in tow and leave her at Thunder Bay. Upon the other hand, respondent's testimony tends to show that the master of the Alpena was to see that she got to Alpena in some way or other himself; in other words, that he guaranteed that she should get there by libelant's exertion and not by his own. Not only is the libelant's theory of the contract sustained by the testimony of himself and of McGregor, in opposition to that of Captain Walker alone, but it looks to me very improbable that the Alpena, which was then bound for Bay City, should assume the responsibility of seeing the Warner safely to Alpena, which might involve the taking of his entire tow a day's journey off his direct route or sending out a tug from Bay City at a large expense. The fact was that when the tow reached Pont Aux Barques the wind was not such as would enable the barge to proceed to Alpena under the little sail she carried, and that the Alpena towed her over beyond the Charities and within two or three miles of the west shore of Saginaw bay, where they arrived about the middle of the night; that the master of the Warner, which had been placed in the rear of the tow for the express purpose of being cast off, made no request to the barge in front of her to throw off her line, or to pass the word to the propeller to stop, but allowed herself to be towed to Bay City. That it was his duty to hail the barge in front of him to cast of his line, I have no doubt. He knew better than any one else where he wished to stop, and might at any time have given directions to be cast off. The master of the tow, on the other hand, had the right to expect that he would do his duty in this regard, and was under no obligation to stop his tow unless he was hailed to do so. Under these circumstances it cannot be wondered at that the master of the Warner, on meeting Captain Walker at Bay City next morning, should have remarked, "I can't tell myself what I am doing here," or that he should write libelants an apologetic letter asking them to exonerate him from the non-performance of his contract. It appears that freights in the meantime had risen, and that before the barge had been in Bay City an hour the master had chartered a cargo to Buffalo. Whether this was the inducement for his failure to perform his contract it is unnecessary to determine; but it seems to me entirely clear that there was such failure, and that libelant is entitled to recover the difference between the Bay City rates at that time, which appear to have been $1.75 a thousand, and the rates which he was obliged to pay to get his lumber to Buffalo, provided he used proper diligence in obtaining a vessel for that purpose.

Respondent being desirous of putting in testimony upon that point, I see no objection to referring the case to a commissioner to compute the damages; and so it is ordered.

GENERAL NEWS.

Hanlan won the boat race with Clifford in Australia by six lengths.

Charge has been made against the management of the Marine Hospital at Memphis, Tenn. The specifications are negligence, inattention, dirt and inhuman treatment on the part of nurses.

A salt well has just been discovered at Gardenville, Erie county, N.Y., whose water yields an ounce of salt per quart of water, which is said to be one of the heaviest yields in the country. A company has been formed and three hundred shares of stock sold.

Four years ago the United States government purchased land at Two Lights, on the coast of Maine, for a life saving station, since when nothing further has been done. Already this winter there have been six wrecks in this vicinity, the last one only a few days since.

A bill will be favorably reported to the House providing that pilots, who served on the United States gunboats during the war, shall receive the same rate of pension as engineers in the same service are now entitled to.

In the weather bulletins the lower lake region is defined by a line starting at the head of St. Clair river and running to the junction of the Ohio, Michigan and Indiana state line to the 40th parallel of latitude, thence northeasterly to the southern end of Lake Champlain, and along the west shore of the lake to the Canadian border.

Hoults' railroad restriction bill has passed both houses of the Oregon legislature by a large majority. The bill is an almost exact copy of the Reagan bill in Congress, so far as it relates to discrimination in rates. The maximum freight charges shall be no higher than the rates in force January 1, 1885, and the maximum passenger rates no more than 4 cents per mile. The bill now awaits the governor's signature.

Tests of speed by the different Atlantic steamers go to prove that the model of a vessel has as much or more to do with the speed of the same than the engine or motive force, and that the resistance of some models is so much greater than others that the difference in the fuel account amounts to a heavy per cent of profit on the capital invested. For instance, the White Star Line steamer Brittanic made the passage in 7 days, 11 hours and 30 minutes, on a coal consumption of ninety-six tons per day, while crack Cunarders, which only lowered her record a trifle, did so at an expense of 350 tons per day. This would make a difference of about $6,000 per trip, which is quite an item.

Cornwall Brothers, of Alexandria Bay,

are building an addition to their dock of 64 feet, and driving piles inside of it to set a building for storing coal. Friday noon one of the piles sprung out of place and let the 1,200-pound hammer go down into the mud. It buried itself so deep it was necessary to send to the Ogdensburg drydock company for a submarine diver, who, after going down twice, reported he could not find it. Captain W. Visgar thought he could find it if they would let him put on the suit, but on going down the water came through his mittens and chilled his hands so he could not work over half an hour, but became satisfied the diver was working in the right spot. The diver, on going down the third time and working 45 minutes, found the hammer in six feet of mud.

STEAM ENGINE INDICATORS.

To the Editor of the Marine Record:

WILLOUGHBY, February 9.

The invention of the steam engine indicators is accredited to James Watt. It has undergone various modifications and improvements since his time. It was at first direct acting; or, in other words, the pencil was attached directly to the piston rod, and registered the motion of the same without multiplication, and was adapted only to slow running engines.

In this form it attained its highest point of excellence as manufactured by McNaught of Scotland.

The adoption of increased velocities of piston, with greator pressures of steam and higher grades of expansion, caused the long and tremulous spring used to oscillate violently by the momentum of the piston and its connections and give as a result a serrated figure from which but little information could be extracted. At this time an improved steam engine indicator has been devised by M. F. Clark and F. R. Low, of Boston, which is an entire departure from the former ideas and principles, the only portion of which that receives any appreciable movement is a beam of light, and this being without weight may receive any desired movement without effect from momentum and inertia. The indicator is attached by a coupling similar to other indicators, and consists of a cup shaped receptacle which is closed steam tight by a stiff diaphragm plate, which is of a good quality of tempered spring steel. Above the center of the diaphragm is a small mirror hung upon a pivot in such a manner that it is tilted by the slight movement which the diaphragm undergoes when under varying pressures to which it is subjected in the working of the engine, in such a manner as to cause a beam of light reflected from it to trace a vertical line on a screen upon which it may be thrown. The pin upon the arm of the indicator is attached to a reducing motion and receives a movement of about half an inch. Upon this arm is carried the bridge which supports the mirror and the motion thus given to it will cause the beam of light to trace a horizontal line, at right angles to the line caused by the motion of the diaphragm. The virtical motion corresponds with the reciprocating movement of the pencil of an ordinary indicator, while the horizontal motion is that of the paper drum, and it will be seen that the combination of these two motions cause the beam of light to trace upon the screen a diagram of energy uninfluenced by inertia or momentum, after the manner of the ordinary indicator card.

The diaphragms are very carefully made of the best tempered spring steel, and ground so that when the screen is set at the specified distance, the point of light will rise one inch for every pound of steam used Where a low pressure of steam is used the leverage is increased in order that the screen may not be removed too far for convenience, in order to make a card of the required size.

M.

RIVER STEAMBOAT.

I am a river engineer, and take great interest in engines of all kinds. I take the Mechanical News, and have bought and read all the mechanical papers nearly, but never see a Mississippi river boat noticed or mentioned. I would like some one to tell me, from rather rough data, how much soft coal per hour the boat I am on ought to burn. Three steel boilers 38 inches in diameter and 20 feet long, two 14-inch flues in each boiler. Two high pressure, lever engines, or poppet valve, 15½ inches diameter, 5 feet stroke; makes 24 revolutions per minute, with 150 pounds of steam, cutting off at ⅝ stroke, working a paddle-wheel 17 feet in diameter, 16-foot bucket, 24 inches wide. This is running up stream, light. With our tow we make about 14 revolutions with 140 pounds of steam. How much less per hour ought we to burn with our tow? On this boat we are allowed 184 pound to the square inch, and with one man firing, we could make it with engines cutting off at ¾ stroke if we wanted to. Our grates are set eleven inches from boilers. If they were the distance some stationary men advocate, 26 to 30 inches, I don't believe we could make 60 pounds under the same circumstances.

RIVER ENGINEER.

[Perhaps some of our lake engineers can answer the above questions.—ED. MARINE RECORD.]

DIRECTORY OF UNITED STATES ENGINEERS.

Having been asked many times by our readers for the address of the United States Engineers, we deem it advisable to print their names and address, and will keep it standing in these columns for the benefit of all concerned:

BRIG. GENERAL O. M. POE,
No. 37 Congress-st, West, Detroit, Mich.

LIEUT. COL. H. M. ROBERTS,
Oswego, N. Y.

LIEUT. COL. W E. MERRILL,
No. 82 West Third-st. Cincinnati, Ohio.

LIEUT. COL. WALTER MCFARLAND,
P.O box 93, Station A, New York, N.Y.

LIEUT. COL. JOHN W. BARLOW,
P. O. drawer No. 7, Milwaukee, Wis.

MAJOR G. L. GILLESPIE,
P.O.box 102, Station A, New York, N.Y.

MAJOR W. H. BENYAURD,
P. O. drawer 132, Chicago, Ill.

MAJOR L. COOPER OVERMAN,
153 Erie-st, Cleveland, Ohio.

MAJOR CHAS. J. ALLEN.
P. O. box H, St. Paul, Minn.

CAPT. CHAS. E. L. DAVIS,
No. 311 Woodward ave., Detroit, Mich.

CAPT. J. B. QUINN,
P. O. lock box 2124, St. Paul, Minn.

CAPT. EDWARD MAGUIRE,
P. O. drawer 185, Buffalo, N. Y.

CAPT. W. L. MARSHALL,
P. O. drawer 42, Milwaukee, Wis.

FOR SALE,

AT

THE GLOBE IRON WORKS.

SECOND HAND TUBULAR BOILER, 44 inches diameter, 43 tubes 3 inches diameter and 12 feet long, steam drum 30 inches diameter, 40 inches high; front grates, fittings and breechings; good order.

SECOND HAND MARINE BOILER, in good order; Shell, 7-16 inch iron plate; diameter, 9 feet 6 inches. length, 18 feet; 129 tubes 4 inches in diameter, 11 feet 4 inches long, three flues 18 inches diameter; two flues 16 inches diameter, two flues 10 1-2 inches diameter; fire box, 6 feet long, 4 feet high; steam chimney, 7 feet high

SECOND HAND MARINE BOILER four feet wide, 6 1-2 feet long, 5 feet high, sixty-four 2 1-2 inch tubes 60 inches long, cast iron breeching, good as new.

SECOND HAND MARINE ENGINE; double direct-acting 8x8 inch cylinder, shaft and wheel for yacht or tug; good as new.

Vesselmen

SHOULD HAVE

OUR MARINE LAW BOOK,

The volumn is handsomely bound in stiff Board covers, and fine English cloth binding. Sent to any address postage paid for $1.00.

—ON—

Seamen,	Owners,
Freights,	Charters,
Towage,	Registry,
Collisions,	Enrollments,
General Average,	Common Carriers,
Duties of Seamen,	Masters & Owners,
Bill of Lading, Wages, &c.	

Containing all points of MARINE LAW as determined by the United States Courts

For Sale or Exchange,

Tug Annie Robertson.

Her length over all is 51 feet, breadth 13 feet and depth of hold 6 feet; draws 5½ feet of water; measures 9 24-100 (new) tons. and 18 24-100 old. Built in 1880 and rebuilt this spring, new deck frames and cabin, and machinery thoroughly overhauled. Engine is 14x14, boiler 8½ feet long and 4 8-12 in diameter and allowed 95 pounds of steam Warranted in No. 1 condition and subject to inspection, Price, $3,300 cash. Inquire at MARINE RECORD OFFICE.

BUTTS COAL CO.

[LIMITED.]

Only Miners of

BUTTS CANNEL COAL,

and dealers in Gas Coals, Nut Coals, and Steam Coal for Tugs, Barges, etc.

CLARK I. BUTTS,

CLEVELAND, O. General Manager.

WIN more money than at anything else by taking an agency for the best selling book out. Beginners succeed grandly. None fail. Terms free. HALLETT BOOK CO., Portland, Maine.

THOS. WILSON

MANAGING OWNER

Wilson's Transit Line.

Gen. Forwarder. Freight and Vessel Agent.

CLEVELAND, O.

PALMER & BENHAM,

Vessel Owners & Agents,

New Bank Building, corner of Superior and Bank Street, Cleveland, Ohio.

MOORE and BARTOW,

Ship Brokers and Agents,

No. 101 St. Clair Street, Room 27.
CLEVELAND, - OHIO.

CAPT. D. M. BECKER. CAPT. HENRY BROCK

D. M. BECKER & CO.,

Commercial Brokers and Vessel Agents,

Vessels chartered, purchased and sold; contracts made for coarse and heavy freights,
Lake Superior and Escanaba iron ore charters for single trip or season a specialty.

Office, 130 Water St. Room 14. Coal & iron Ex. Build'g. Telephone No. 953. Cleveland, O.

H. J. WEBB & CO.,

Ship Brokers, Vessel Owners and Agents.

[ESTABLISHED IN 1856.]

H. J. WEBB & Co., will charter Vessels for Lake Trade. Special attention given to Chartering Vessels in the Lake Superior Iron Ore Trade, both for the season and single trip.

ARCADE BUILDING, 101 ST. CLAIR ST., Cleveland, Ohio.

TELEPHONE {Office, No. 338. Residence, No. 1328.

SCOTT & BERRIMAN.

Fire and Marine Insurance Agents and Vessel Brokers.

Attention also given to the purchase and sale of Iron Ore, Telephone, No. 18.
Office, 130 South Water-St., Cleveland, O.

J. A. OSBORNE,

Attorney, Proctor & Advocate,

ROOM 6, 190 SUPERIOR ST.,

CLEVELAND, OHIO.

ROBERT RAE,

Admiralty and Insurance Law Office,

Room 37, Merchants' building, CHICAGO, ILL.

ALEX McDOUGALL,

VESSEL AGENT AND BROKER,

DULUTH.

Owners and masters of vessels wishing to get cargoes of grain from this port will do well to confer with me. Will be glad to furnish information in regard to cargoes, also in relation to docks, depth of water, etc., at Duluth, Agate Bay (new iron ore port), Port Arthur, Washburn, Ashland, and all points near the west end of Lake Superior. Good gangs of men furnished on short notice for trimming cargoes of grain, loading and unloading all kinds of freight.

JAMES T. ROSE,

Vessel Agent and Broker,

BOX 1616, DULUTH, MINN.

Late Gen. Ag't for Collingwood Line of Steamers
Special Attention Paid to Chartering Vessels.

A. M. BARNUM,

Vessel Agent and Broker,

15 Exchange St. Buffalo, N. Y.

☞IF YOU DO NOT RECEIVE MY MONTHLY LIST OF VESSELS FOR SALE, SEND FOR IT

BEE LINE

CLEVELAND, COLUMBUS, CINCINNATI & INDIANAPOLIS.

Commencing Sunday, November 23, 1884, trains of the Bee Line—Cleveland, Columbus, Cincinnati & Indianapolis Railway—will leave and arrive at Cleveland as follows, CENTRAL STANDARD TIME, 33 minutes slower than Cleveland time:

	Depart
No. 3, Columbus, Cincinnati & Ind Ex.....	9:00 A M
No. 23, Galion & Wheeling Express.....	6:50 A M
No. 9, Col., Cin., Ind & St. Louis Ex.....	*6:50 P M
No. 5, Col. Cin., Ind. & St. Louis Express...	*12 25 P M
No. 27, Galion & C.L & W. Acc.....	3:30 P M
No. 29, Massillon & Ulrichsville Ex.....	4.30 P M
	Arrive.
No. 8, Col, Cin, Ind. & St. Louis Exp.....	*6:40 A M
No. 20, Uhricsville & Massillon Ex.....	8:55 A M
No. 2, Col. Cin. & Indianapolis Express.....	9:50 P M
No, 14, St, Louis, Ind.. Cin. & Col. Ex.....	*4:45 P M
No. 22, Galion Acc.....	9:20 A M
No, 26. Wheeling Accom	4:15 P M
No. 4, Col., Cin. & N. Y. Express.....	1:35 A M

Trains marked * daily, all other trains daily except Sunday

E. B. THOMAS, General Manager. O. B. SKINNER, Traffic Manager.

A. J. SMITH, General Passenger Agent.

CLEVELAND, OHIO.

LAKE SHORE & MICHIGAN SOUTHERN

Commencing Sunday, May 11, 1884, at 12 o'clock noon the time given in the figures below is the new standard (Ninetieth meridian) time, which is thirty-three minutes slower than Cleveland time proper.

Eastward.	Arrive	Depart.
No 4. Fast Limited Express.....	*1 10 A M	*1 25 A M
No 8, N Y, B & A Express.....	*6 35 A M	*7 00 A M
No 26, Elyria Accommodation.....	†8 05 A M	.....
No 35, Buffalo Ac'm via Sandusky	†10 35 A M	†10 50 A M
No 35, Toledo Accom via Norwalk	†10 35 A M	†10 50 A M
No 12. N Y & B Fast Express.....	*1 55 P M	*2 25 P M
No 14, Special N Y & Bos Express	.....	5 00 P M
No 2, Night Ex via Norwalk.....	9 40 P M	†10 00 P M
No 22, Night Ex via Sandusky...	†9 42 P M	.....
No 26, Conneaut Accommodation	†4 25 P M	.....
Westward.	**Arrive.**	**Depart.**
No 1, Fast Limited Express.....	*11 55 A M	*12 05 A M
No 23, Mich Express via Sandusky	*2 15 A M	*2 35 A M
No 3, Chicago Express via " ..	6 05 A M	6 30 A M
No 25, Mich Accom Norwalk.....	.....	†6 10 A M
No 21, Toledo Ex via Norwalk...	†12 50 P M	†3 20 P M
No 5, St Louis Ex via Sandusky..	†12 05 P M	12 50 P M
No 9, Chi Pac Fx via Norwalk.....	*6 10 P M	*6 4· P M
No 31, Elyria ac to Elyria only...	.....	†4 30 P M
No 27. Conneaut Accommodation	†8 10 A M	.....

Sunday train for Nottingham—Depart 8:30 a. m. and 1:45 p. m.; returning, leave Nottingham at 9:05 a. m, and 3:45 p. m.

Reference marks—* Daily, † daily, except Sunday, ‡ daily, except Monday.

For full information as to trains and connections apply at the new city ticket office, corner Seneca and St. Clair streets, Lake Shore block.

The Nickel Plate!

NEW YORK, CHICAGO & ST. LOUIS RAILWAY.

The passenger equipment of this New Trunk Line is all new and is supplied with the latest appliances necessary to safe speedy and comfortable travel.

Trains leave and arrive at the Union Depot, Van Buren street, Chicago, and N Y, L E & W R'y depot at Buffalo.

Following is the time in effect Oct. 6, 1884, and until further notice:

GOING EAST.	LV.	AR.	GOING WEST.
A. M.			P. M.
..... 7 50	.....	Chicago.....	7 50 .....
..... 9 45	.....	Valparaiso.....	5 42 .....
P. M.			
..... 1 50	.....	Fort Wayne	1 50 .....
..... 2 05	.....	New Haven.....	1 35 .....
			A. M.
..... 3 56	.....	Leipsic.....	11 30 .....
..... 4 49	.....	Arcadia.....	10 34 .....
A. M.			P. M.
6 50 5 00	.....	Fostoria.....	10 22 8 50
7 35 5 45	.....	Green Springs.	9 44 8 05
8 15 6 20	.....	Bellevue.....	9 10 7 35
10 49 9 02	AR.	Cleveland..... LV.	6 45 5 01
P. M.			
12 05	.....	Painesville.....	..... 3 44
12 58	.....	Ashtabula.....	..... 2 51
1 42	.....	Conneaut.....	..... 2 20
2 41	.....	Erie	..... 1 23
			A. M.
4 19	.....	Dunkirk	..... 11 24
			A. M.
5 55	AR.	Buffalo..... LV.	..... 9 50

Through tickets to all points are on sale at principal offices of the company at LOWEST RATES for any class of tickets desired. Baggage checked to destination

For information, call on nearest agent of the Company, or address

B. F. HORNER, Gen'l Passenger Agent,

LEWIS WILLIAMS, General Manager. Cleveland, O.

New York, Pennsylvania & Ohio R. R.

NEW YORK, BOSTON AND THE EAST.

Central or Ninetieth Meridien time, 33 minutes slower than Cleveland city time.

Until further notice trains will leave from the new Central Depot, South Water street and Viaduct as follows:

7.20 a. m. ATLANTIC EXPRESS—(Daily) Pullman sleeping and hotel coaches from Leavittsburgh 9:10 a. m. to New York, Albany and Boston without change. Arrive at Meadville at 11:25 a. m. (dinner) Franklin at 12:08 p. m, Oil City 12:30 p m, Corry 1.14 p. m, Jamestown (Lake Chautauqua) 2.12 p. m, Buffalo 5:50 p. m. Rochester 8:20 p. m.; Hornellsville 6:00 p. m. [supper]; Corning 7:25 p. m. Elmira 8:05 p. m. Binghanton 10:05 p. m., Albany 5:00 a. m. Boston 2:05 p. m.; arriving at New York 6:15 a.m.

7:20 a. m. PITTSBURGH EXPRESS — Daily — Through without change. Arrives at Youngstown 9.55 a. m., Sharon 10:55 a. m., Sharpesville 11:05 a. m., Pittsburgh 12 45 p m.

2:30 p. m. LIMITED EXPRESS—Through Pullman sleeping coach from Cleveland to New York. Arrives at Meadville at 6:30 p. m., Jamestown 8:47 p. m., Salamanca 9:45 p. m., New York 10:25 a. m.

2:30 p. m. PITTSBURGH, WASHINGTON AND BALTIMORE EXPRESS—Daily—Thro without change. Arrives at Youngstown 5:00 p m., Pittsburg 8:00p. m., Washington 7:09 a. m., Baltimore at 8:19 a. m.

4:00 p. m. MAHONING AOMMODATION — Stopping at all way stations, arriving at Youngstown 6:55 p. m., Sharon 7:50 p. m., Sharpesville 8:00 p. m. Daily except Sunday.

11:00 p. m. NIGHT EXPRESS—(Daily except Sunday) Seeping coach from Cleveland to Hornellsville. Arrive at Meadville 3:25 a. m., Corry 4:59 a. m. Jamestown 5.57 a m, Salamanca at 7.10 a. m., Buffalo 9:20 a. m., Niagara Falls 11.50 a m., Rochester 12:58 p. m., Hornellsville, 11:00 a m , Corning 12:07 p. m, Elmira 12:40 p. m., Binghampton 2:19 p m., New York 9:10 p. m.

11 00 p. m. PITTSBURGH, WASHINGTON AND BALTIMORE EXPRESS — Wagner Sleeping Coach, Cleveland to Pittsburg without change Arrive at Youngstown at 2:00 a. m., Pittsburgh 5:55 a. m., Washington at 7.30 p m, Baltimore at 8.30 p m.

Trains arrive at Cleveland, 6:20 a. m., 10:08 p. m., 12:50 p. m., and 6.15 p. m.

☞This is the only route by which passengers can reach Corry Elmira, Binghampton, New York City and intermediate points without change. No change to Boston and New England Cities.

Baggage checked through to all points East

Through tickets and information regarding the route can be obtained at the office 131 Bank street, and at new Depot of N. Y., P & O R R., South Water street and Viaduct, Cleveland, O.

A. E. CLARK, Gen'l Pass'r Ag't Cleveland, O.
J. M FEBRIS, Gen'l Man'gr, Cleveland, O.
M. L. FOUTS, Passenger Agt, 131 Bank St. Cleveland.

FOR SALE,

A Fine Harbor Tug.

Dimensions of hull 65 feet over all, 16 feet beam, 8 feet hold, and measures 46 tons with 7 feet draft; can be made 6 feet draft. The engine, 18x20, is in first-class condition, with all new brasses, new rings in cylinder and turns a six-foot wheel, which was new last season. The boiler is one year old, is large enough to burn wood or coal and is allowed 100 pounds of steam. Price $4,500, and must be sold inside of thirty days, Address MARINE RECORD OFFICE.

The Marine Record.

Published Every Thursday at 144 Superior Street, [Leader Building.]

A. A. POMEROY, Editor and Proprietor.

TERMS OF SUBSCRIPTION:

One year, postage paid.....$2.00
Six months, postage paid..... 1.00
Invariably in advance.

Subscriptions will be continued until ordered stopped by a written order, or at the publication office

The MARINE RECORD can be found for sale by the following news dealers.:

CLEVELAND, OHIO—G F Bowman, corner of Pearl and Detroit, streets.

CHICAGO, ILL.—Joseph Gray, No. 9 West Randolph street.

BUFFALO, N. Y.—C. Rohmer, Michigan stree Swing Bridge.

DULUTH, MINN.—C. F. Johnson, 117 West Superior street.

ESCANABA, MICH.—William Godley.

MANISTEE, MICH.—J. E. Somerville.

Articles, letters and queries on all subjects are solicited.

ADVERTISING RATES MADE KNOWN ON APPLICATION.

Entered at the Post Office at Cleveland as second-class mail matter.

CLEVELAND, OHIO, THURSDAY, FEBRUARY 19.

RELIEF BY BOUNTY.

The necessity of governmental aid to American shipping was again last week brought to the attention of the Senate by Mr. Don Cameron, of Pennsylvania, who is always alive to the best interests of the country. Although this system would at once depreciate the value of the tonnage at present aflost, it would be of great assistance to builders in the construction of new ships, whereby investors would be enabled to get better property for less money. The tendency of a measure of this nature, however, would have the effect of levying the payment of this bounty, to a certain extent, on the tonnage now in existence; that is, the old tonnage would indirectly assist the government in paying the bounty on new vessels to share the trade, until sufficient commerce grew up to accommodate all. Although it is considered, in some quarters, a crime to advocate free trade, and however much our present system has enhanced the profits of certain industries, we are compelled to the conviction that we have protected ourselves out of a merchant marine. In order to restore the comparative prestige we enjoyed on the seas in 1840, at which time 83 per cent of our foreign commerce was carried in American ships, some measure of the kind introduced by Senator Cameron becomes necessary, and should prevail. The bill allows a tonnage bounty on all ships built and mileage bounty for sailing them, similar, in most respects, to the French law, which subsidizes the builder, and the owner for miles navigated, although the latter is confined to the foreign carrying trade. Some of the more important provisions of the French law we quote, as follows:

ART. 4. In order to compensate shipbuilders for the charges imposed upon them by the customs tariff, the following allowances are made: On iron or steel ships 60 francs per gross ton measurement; on wooden ships of 200 tons or more, 10 francs per gross ton measurement; on wooden ships of less than 200 tons, 10 francs per gross ton measurement; on composite ships, 40 francs per ton gross measurement, on the motoric engines and auxiliary apparatus, such as steam pumps, etc., 12 francs per 100 kilograms.

ART. 5. Any alterations in a ship resulting in an increase of her measurement, entitle to a bounty on the basis of the above tariff, according to the number of tons gained in the measurement.

The bounty is granted for driving engines and auxiliary apparatus placed on board after completion of the ship.

When boilers are changed, the owner of the ship shall be entitled to a compensation bounty of 8 francs for each 100 kilograms (3s. 2½d. per cent) of new boilers; if of French make, weighed without their pipes.

ART. 6. The bounty granted by articles 4 and 5 will be paid on delivery of the ship's register by the receiver of customs at the port nearest to the place of construction.

ART. 8; In the case of vessels on the stocks at the time when the present law comes into force, the shipbuilders shall receive the bounty stipulated in article 4 only after deducting from the same the amount of customs dues by the conventional tariff upon such foreign imports as these builders may have entered in bond for shipbuilding purposes

This bounty applies exclusively to foreign-going vessels. It is fixed at 1 franc 50 centimes (1s. 2½d.) for each ton net measurement, and for each thousand miles run, for French built vessels fresh off the stocks, and decreases annually by 0.075 centimes (¾d.) for wooden vessels; 0.075 centimes (¾d.) for composite vessels; 0.05 centimes (½d.) for iron or steel vessels. Only half that bounty is granted to foreign-built vessels.

Vessels obaining their certificate of registry as French before the publication of the present law are assimilated to French-built vessels, as regards the bounty.

The bounty is increased by 15 per cent for steamers built upon plans previously approved by the marine department.

The number of miles run is calculated according to the distance from the point of departure to the point of arrival, measured on the direct maritime line.

In case of war merchant vessels can be requisitioned by the State.

Vessels employed for fishing purposes, those belonging to lines subsidized by government, and yachts are not entitled to the bounty.

ART. 10. All masters of ships receiving one of the allowances fixed by the above article 9 shall be obliged to carry, free of charge, mails which may be put under their charge by the postoffice authorities, or which they shall have to deliver to that administration as prescribed in the consular decrees of 19th germinal, year X.

Hence the bounty due to a steamer built in France equals 17½ per cent of her total cost, which would amount to $44,000 on the construction of a steamer costing $250,000. It is said that under this fostering hand the French are rapidly extending their commerce, and it is doubtless a good system for this country to adopt.

WINTER NAVIGATION.

As the government has assumed control of our lake navigation, and has assisted it materially in the construction of lighthouses, harbors of refuge, the establishment of the life saving service, and the general improvement of our rivers and harbors, and placed on the lakes a number of revenue cutters, ostensibly to assist vessels in distress portions of the crews of which are kept under pay during the winter months, we are led to suggest the propriety of the cutters being used for the purpose designated, the relief of distressed vessels. The experience of the propeller Oneida, which was ice bound for a period of twenty days, was serious, but she was at no time given up as lost. Not so however, with the propeller Michigan, which ten days ago went in search of the Oneida. The Michigan's total loss, with all on board, has been frequently reported, but which is now ice bound south of Grand Haven. The commerce of the lakes is growing with each new year and many lines of steamers find it profitable to continue business, especially on Lake Michigan, during the winter months, transporting an enormous amount of freight. It would seem then, if we have no government vessel on the lakes fitted for the purpose of an ice breaker, for the object of assisting this interest, it would be a matter of good governmental policy to build one, especially as we have several well appointed iron shipbuilding yards on the lakes, the proprietors of which would be pleased to figure on a little government work. It is well known that the government keeps revenue vessels in rediness to furnish assistance when required on the ocean, then why are we not permitted to expect that she should extend her aid and protection to include the lakes.

A PETITION is being circulated asking the government to build a canal from the Calument river, commencing south of Cummings and running west to Calumet lake. The object is to open Calumet lake to navigation, and that event would make one of the finest inland harbors in the United States.

THERE is a rumor afloat to the effect that the Beaver river is to be improved and a ship canal cut from its headwaters to Lake Erie. It is said that the matter will be brought before the next Congress. This project was on foot once before, but failed for want of capital and brains.

THE Edgar Thompson Steel Works at Braddocks resumed operations in all the departments last week, giving employment to four thousand men, who have been idle eight weeks. The men return to work at a slight reduction.

THE prospects for the passage of the river and harbor bill are somewhat brighter, although there is still much bushwhacking going on. We consider the action of Mr. Bayne, in opposition to the proposed status of the board of harbor inspectors, as noted in these columns recently, is well taken. Mr. Bayne favored a measure providing that the majority of the board should be United states engineers, instead of civilians. The Hennepin canal was opposed on the ground that Illinois, like New York, should build and maintain the canal, as it would be of local interest. An amendment to the Galveston harbor item was adopted. It appropriates $500,000 for the improvement of that harbor, and directs the harbor board to at once examine the plans, specifications and estimates for the improvement, and report to the Secretary of War for his approval. This is a wise change from the original bill. On motion of Mr. Price, an amendment was adopted increasing from $12,500 to $28,000 the appropriation for the harbor at Superior Bay and the harbor at St. Louis Bay, Wis. On motion of Representative Foran, an amendment was inserted in the river and harbor bill to provide that the money appropriated for the Cleveland harbor shall be expended in the construction of a section of breakwater of the same size and character of the present lake arm of the harbor of refuge.

LIEUTENANT GORDON, after a trip up Hudson Bay, informs the Canadian Government that he is of the opinion that navigation of the bay and strait will be found to be practicable.

DOUBLE SIDE LIGHTS.

PORT CLINTON, February 16.

To the Editor of the Marine Record.

DEAR SIR:—I see that the double light system is being agitated. I would like to know if any lake man, or even vessel owner, has ever approved of Senator Bayard's bill for two side lights? I think not, for I had a chance to talk with hundreds of lake men, and they think the idea of any such a change too ridiculous for a second thought. But it is this confident feeling that is more apt to let it become a law. But if Mr. Bayard or Commissioner Patten should have to act as pilots on our lakes and rivers, they would see times when they could see more lights with our present system than they could account for. For instance: take it in Detroit or St. Clair rivers, where you will meet two or three tows of vessels or barges, in close proximity to each other. They could see, then, what is called color-blindness; for you will see green lights of such a light shade that when close by they show very light blue, but when at a distance they look like a bright light; and there is just as much difference with the red lights. What we want is a standard color that all lights should be tested with, the same as our inspectors test our steam guages, (by one of their own,) and not take it for granted because the glass globe in a light looks red or green, that it will show the proper colored light. And one thing more, if our inspectors and vessel owners would see that all light shades were properly made, so they would show the light just as the law designates, there would be no need of any more legislation upon this subject. But at present owners and masters will nail three pieces of board together and stick it up for a light-shade, without any regard to the style of light that they are using, and very frequently you can see side lights that will be visible sixteen points of the compass. If the present laws were enforced, with a standard color to test all lights by, a large proportion of our collisions would be avoided and color-blindness would be found to be a myth. But if we are to be inflicted with a double light system, I sincerely hope that Senator Bayard will attach an amendment to his bill to have the auxiliary lights carried at the foremast head, the same as the old N. T. Co's boats used to carry white lights, one at each end of the cross trees, or else in the cook's galley, or under the forecastle deck, or any other place where they would be safe from getting broken, (for an extra light is very handy to have on a vessel,) also where they would be out of sight, for it is well-known that the more lights there are in sight on meeting vessels, the more confusion it causes. It is our duty, as lake men, to oppose anything that will make navigation more complicated on our lakes and rivers than it is now. J. G. G.

NEEDLE'S EYE.

PRESCOTT, ONT., February 16.

Editor of the Marine Record:

I notice an article going the rounds of the press, which appeared first in the Ogdensburg News, in regard to a shoal in the St. Lawrence river, which they call the Needle's Eye. They seem to have things a little mixed, as the Needle's Eye proper is formed by an island near the main shore, leaving a passage about thirty-five or forty feet wide. Both sides of the passage are almost perpendicular with very deep water between. A good many small excursion steamers run through it. The shoal spoken so much about is one-fourth mile further up, or about three miles above Brockville, at the head of what is known as the lower narrows. Said shoal is directly in the center of the channel with good water on each side. READER.

GOVERNMENT VS. LACKAWANNA RAILROAD.

Lieut-Col. McFarland, the Government engineer who came up from New York a few days ago to look into the matter in dispute between United States and the Lackawanna authorities, has made an examination of the case, completed his report to the Secretary of War, and returned to New York. He gave a short outline of the trouble between the Government and the railroad, though, being obliged to take the train, he left the details to Captain Maguire, engineer in charge of the harbor, from whom most of the information given below was obtained. Col. McFarland stated that he entirely approved of this action of Captain Maguire in putting troops on the disputed property to oppose the movements of the Lackawanna.

It is claimed that the statements of the case lately published have not been obtained from the Government authorities, and in some instances the Government has been misrepresented. The property in dispute is the pier, some 700 feet long, running along the mouth of Buffalo Creek, directly in front of the Lackawanna coal chutes. The chutes are in fact built partly on the pier. This is known by the Government authorities as the north pier, just as that on the other side of the creek and terminating at the lighthouse is the south pier. In 1826 the Government built a pier occupying the same position as the north pier, now in dispute, which it occupied undisputed until 1868, when the Lackawanna company obtained a quit-claim deed from John C. Lord and others of the land on which the pier stood. This is the company's authority for claiming the pier. The Government is satisfied that the company has no title to the pier, though the company claims to have one.

In 1879 the company tried to get possession of the pier and do some work on it, but was prevented by the Government authorities. As in the present case soldiers were placed there to guard it. The difficulty was at that time arranged by a stipulation offered by the company, which allowed it to go on and build a certain portion of the present pier. It was agreed that by this permission the rights of neither party should be prejudiced. The work was limited as to its nature and character. There was no further change in the state of affairs until a short time ago when the Lackawanna company undertook to do some work on the pier, by way of extending it, without asking permission of the Government. Captain Maguire at once protested. His wishes were disregarded and he referred the matter to the Secretary of War, who ordered the soldiers out. Captain Maguire states that he made but one claim in the case, that the company must wait for the decision of the Secretary of War before acting. The troops were placed on the property to make the company wait.

As to withdrawing the soldiers before the dispute is settled, this was not done until a promise was obtained from General Sales Agent Holden of the Lackawanna that nothing should be done until the difficulty was settled. In view also of the severe weather the soldiers were withdrawn. Captain Maguire does not feel at liberty to state just how it is proposed to patch up the breach between the contending interests, but wishes it to be understood that the proposition for adjustment comes from Lackawanna and not from the Government. The latter has no overtures to make. It is understood that the company wishes to rebuild the pier up the creek as far as the Bennett elevator property, with a view of extending the coal chutes in that direction.

DISSOLUTION.

The partnership heretofore existing under the name of "Penfield Block Co.," between the undersigned, has been dissolved by mutual consent and the same persons have formed a corporation under the old firm name and have succeeded to all the business, property, good will, etc., of the old company, and will adjust all unsettled accounts, and will carry on the business in the same factory and with the same facilities, under the same management as heretofore; and they desire to extend to their many patrons their sincere thanks for past favors and respectfully solicit a continuance of the same.

The new company have elected for President, A. S. Beverly; for Vice-President, Jesse Peterson; for Secretary, Z. W. More, and for Treasurer, M. H. Tarbox.

Dated, Lockport, N. Y., January 31, 1885.

(Signed,)

A. S. Beverly, Z. W. More,
M. R. Cook, M. P. B. Cook,
Frank Gebbie, J. Carl Jackson,
W. S. Camp, Jessie Peterson,
M. H. Tarbox.

RIVER NAVIGATION NOTES.

St. Louis, February 18.

Special Correspondence of the Marine Record.

Navigation remains at about the same condition, as when I wrote my last letter. Plenty of ice in the river and navigation almost wholy suspended. The river is not closed however, the ferry boats and the harbor tugs running.

The later part of the past week having turned warmer, caused the announcement that the Spread Eagle would resume her Altonian trips, but, when the snow of Sunday came, bringing with it arctic winds and heavy floating ice, the order was rescinded and the Spread Eagle still lays at the wharf in Alton.

The lower country boats are in suspension, the insurance companies having placed an embargo upon navigation.

The wife of Captain James Ward, [Ward and Brady] was buried Sunday.

H. B. Jenkens, was called home on Saturday, owing to sickness in his family.

Marine Engineers Beneficial Association, No. 6, of this city, will take active measures to defeat any effort to make the use of the Edison steam gauge compulsory upon our western river steamers for, said a prominent member of the order, "Who is better qualified to determine the utility of a patent steam boiler device than the engineer who operates it. We are opposed to the compulsory use of any new steam boiler appliances, yet we are willing to try any new invention, but we desire to be free to discontinue if found inadequent to its pretensions." J. H. H.

ANDREW RITTER.

Bird's Point, Ill., February 17.

Special Correspondence Marine Record.

As I am at last settled in my new position, I will try and write a few lines biographic of Andrew Ritter, the recently elected national president of the Engineers' Association. The first national president was Mr. Garrett Down, of Buffalo, followed in turn by A. S. Foote, of Baltimore; T. H. Nelson, of St. Louis; E. D. Bateman, of Cincinnati; J. H. Reid, of Detroit; Wm. E. Russell, of Pittsburg. Of the six, Messrs. Down, Nelson and Reid were sailing as engineers; Mr. Foote was sailing, but was master of his own vessel; Mr. Bateman was employed as engineer on shore, Mr. Russell being a traveling man for the Sligo Iron Mills, of Pittsburgh. Two of the six gentlemen had been from the lakes, when once again the lakes got the leader, by the election of Mr. Ritter. Mr. Ritter is a gentleman in the neighborhood of forty years of age, small, and trimly built, cool in judgment and sure in decision.

His first introduction into the engineering was in a railway shop where he served his time. From the locomotive, Mr. Ritter changed to the lake steamer, and though not one of the oldest men in the business his reputation was with the first. However he became engaged, and continued so at the present time, on shore in a machine shop in Chicago, where though apart owner, he officiates as foreman. Mr. Ritter, in addition to fine business qualities, is a draughtsman of no mean ability; in fact, possesses to a rare degree, all those attainments that go to make a man proficient in the engineering trade. Being well up in other secret orders has made him singularly fitted for the position in which they have placed him. Mr. Ritter will be ably assisted by Mr. Henry G. Payne, national vice-president, who is also from the lake marine, being a member of No. 1 and a resident of Buffalo, N. Y.

The Second Engineer.

[*Continued from 1st Page*]

DETROIT.

Special to the Marine Record.

Owing to the continued unusually cold weather, there are grave apprehensions that there will be a late opening of navigation. But this will chiefly depend on the state of the weather through March. The commencement of business for the past five years, beginning with 1880, were: Between Detroit and Cleveland, March 1st; to Buffalo, March 19th; the Straits and Lake Superior, April 5th. 1881, between Detroit and Cleveland, April 19th; to Buffalo, May 3d; to the Straits, May 3d, and the Sault the same date. 1882, Detroit and Cleveland, March 9th; to Buffalo, March 26th; Straits, April 19th, and the Sault the same date. 1883, Detroit and Cleveland, April 17th; to Buffalo, April 25th; the Straits, April 29th, and to Lake Superior, May 2d. 1884, Detroit and Cleveland, April 8d; to Buffalo, April 22d; Straits of Mackinaw, April 24th, and to Lake Superior, April 23d. The winter of 1880 was a remarkable one, as there was an opening throughout the lake region January 1st, and closing intervals from that date until the commencement of business, on the dates above given.

The steambarge C. N. Pratt, laid up at Windsor, was discovered on fire a few days since, and but for the prompt attendance of the Windsor fire department, would have been totally destroyed. She was damaged to the extent of $400 and upward. The origin of the fire was beyond a doubt the work of an incendiary, as there were found blankets saturated with oil wound around the tow posts in the hold, beside a lot of kindling wood and a half-filled oil can in the engine room.

The money derived from the sale of the tug Bob Hackett has been attached by numerous creditors, for supplies.

The steambarge Garden City, moored at Springwells, was visited by burglars a few mornings since, who were discovered in the cabin by John Williams, the watchman. They made dire threats, and even threatened to shoot him. Williams, however, proved to be no coward and was equal to the emergency, and saluted them with his revolver, and in return received a shot which grazed his check. In the meantime he fell from the cabin guard to the main deck, and for the time being was rendered insensible. When he revived the fellows had left, and a trail of blood was discovered leading from the boat to the dock, rendering it certain that one of them had been hit. So far as ascertained, nothing was taken.

Joseph Watts, a citizen of Detroit for many years, and who, for a long period, carried on sail-making, died on Saturday last at the age of 71. He was widely known among lake men, and for some time was of the firm of Mayes & Watts, in that business, at the foot of Woodworth avenue. His funeral took place yesterday, and was largely attended by members of the craft. His life was without a blemish.

Mrs. Maria Low, of this city, has purchased the schooner Home, of Port Huron, for $3,000. She was built at that port in 1865 144 tons burden and brought her registered valuation.

The tug Bob Hackett, it is stated, will be commanded the coming season by Captain George Odette.

It is known to but very few, but it is nevertheless true, that the first marine reporter on the lakes was J. B. Vallu, at Detroit, in the years 1830, '31 and '32. And by reference to the Advertiser's marine of those years, it is plain that he understood his business and did his work well. He was also connected with the customs department, but has long since been deceased.

Captain A. H. Mills, the well-known tug owner, has been confined to his residence nearly the whole of the winter, though he is now improving.

The ice blockade is on the Detroit river, yet the ferry steamers keep up the crossing, though occasionally temporarily brought to a standstill.

Although there are considerable fears regarding the fate of the propeller Michigan, beleagured by ice on Lake Michigan, those here who know of her staunchness and mode of build, believe that in due time she will come out all right.

The petition, circulated by Captain Alex McDougall, of Duluth, Captain T. Wilson, of Cleveland, and others interested in Duluth, for placing at that port a fog whistle, has been largely signed and placed in the hands of Captain Charles E. Davis, United States engineer at Detroit, and will no doubt receive favorable action.

A verdict has been given in favor of the Boston Insurance Company, who were sued by the Richelieu & Ontario Navigation Company, to recover $10,000 insurance on the steamer Spartan, lost in Lake Superior. The Union Insurance Company of Philadelphia, the Continental Company of New York, and the Insurance Company of the State of Pennsylvania are defendants in similar suits, all of which have been continued, pending the final disposition of this case. Other insurance companies will be bound by the result of this suit. J. W. H.

TOLEDO.

Special to the Marine Record.

Propeller J. E. Mills is fast in the ice. On December 14th the Mills steamed up to Cherry street bridge with a cargo of salt, and drifted around to get through the above bridge, but could not get through until next day, because the harbor master could not be found to open it. That detained her so that she could not get home. She got fast in the ice in Maumee Bay, and on the 7th day of January Captain Ellery got some men and cut her way back for Ten-mile creek. When they got her within three-quarters of a mile of the creek, on Sunday night, January 11, the ice left the bay and sunk the Mills. They got Messrs. Thatcher and Brayman, the submarine divers, to patch the hole, which is about two feet by thirty. A number of men with pumps and pails were put on board and got her afloat on the 15th of January, and since that time they have kept up steam night and day to keep the water out of the propeller. They have burned up all their fuel, and by spring they will have all their freight, which, by good fortune, is coal, burned. Messrs. N. and B. Mills will ask the city to pay the damages, we learn.

E.

OSWEGO.

Lieutenant Colonel H. M. Roberts, Corps of Engineers, is detailed, vice Major W. H. Heuer, as a member of the commission advisory to the board of harbor commissioners of Philadelphia.

STEAMER CITY OF MONTREAL—THE MYSTERY EXPLAINED.

Mr. Thomas Marks, of Port Arthur, owner of the steamer City of Montreal, made the following statement in the office of the Toronto Globe, that correction should be given concerning the wildly erroneous statements by some of the Toronto papers about the attempt at scuttling the City of Montreal. Mr. Marks stated that the circumstances were as follows: "Early in the spring of 1884 I purchased the City of Montreal from Mr. Haggerty and Captain Leach, of Toronto, for $8,500, for the purpose of plying on Lake Superior between Port Arthur and Michipicoten and intermediate ports. She continued to run during the summer and had what I consider a successful season, netting about $5,500. There was some slight defect in the boiler toward the tail, and we laid her up in the early part of November in Owen Sound. We paid off all our men except the mate, Crawford, who was employed as watchman. About a couple of weeks after the boat had been laid up I paid a visit to Owen Sound for the purpose of getting extensive repairs done. I went to the boat and made inquiry of the watchman as to the boat's condition. He said she had been slightly leaking, and he thought it was principally aft. I went down in the after part of the vessel in the rear of the engine room with the mate. We heard some water trickling through the sleeve which the shaft goes through. I asked Crawford if he thought there were any other leaks in the vessel. He said he didn't know of any other, but when she was heavily loaded she had been leaking some forward. I went into the hold and went forward into the floor of the forecastle and forepeak, and saw a piece of the inside lining cut or bored out. I asked the mate why they had been cutting the lining, and he said they had been doing this to look for the leak that was in her, forward, when she was loaded. I examined the forward part of the vessel pretty well, and found her timbers sound and found no auger holes at the time, as has been wrongly stated, and I am positive that there were no auger holes except those made to cut out the piece of lining. I returned to Toronto to see Mr. Rislow, the chairman of the board of steamboat inspectors, as to getting one of the inspectors to look at the hull of the steamer and see what she wanted to put her in first-class condition. He referred me to Captain Harbottle, who told me that if he made a special inspection I would have to bear the expense, which I agreed to do. The captain went to Owen Sound and took a look over the boat while she was in the drydock, and reported to me about what she required. The shipbuilder in Owen Sound then went on and commenced the repairs inside by putting in partially new arches and new timber where it was required, as well as a new ceiling from midships aft. Before the completion of the work I asked Captain Harbottle to visit the boat before she was completely finished. He again went to Owen Sound, and while there discovered the boring in the forward part of the vessel, as stated in the reports. The thickness of the wood between the auger hole and the outside of the planking was three-quarters of an inch. After returning he reported to me that the repairs had been pretty thorough, and seemed well satisfied with the work done, but informed me of this boring in the forward part of the vessel, which I was very much astonished to hear, as I thought no one of the crew would be bad enough to commit such an act. The boring or attempting to scuttle must have been done between the time I visited the boat and the time Captain Harbottle made his last inspection. I have no idea who committed the act, but suppose it must be some vicious person who had been discharged from the boat for insubordination or other cause, or it might have been done by some one to gratify private spite against me. I only paid $8,500 for the boat, instead of $12,000, as stated in the report. The whole statement about the price in one of your contemporaries, and the inferences it would lead to, were a complete fabrication from beginning to end, made in order to get up a sensational report. I am now endeavoring to find out the guilty party. There is one thing that would indicate that the boring must have been done while the boat was laid up, and that was the size of the auger. I am confident that no such tool was kept for any purpose on board the steamer."

AN EXPLANATION FROM THE DRYDOCK.

The following explanation of the matter came by telegraph from Owen Sound: The S.S. City of Montreal struck on a rock off Otterhead, Lake Superior, the past season, and sprung aleak about ten feet from the bow. A man, an ignorant one apparently, was sent forward to search, and bored through her ceiling, one hole going nearly through. On inspection, considerable talk was made about the matter, but a new plank was put in, and she is now in the drydock for thorough repairs and to be transferred into a barge. The drydock master says all idea of a malicious attempt to scuttle is wrong, all blame, if any, being in sending an ignorant man to search for a leak.

[Having printed an article from the Kingston News in relation to this matter last week, which reflected somewhat upon the master of the City of Montreal, Captain Paul Howell, and which has done him an injustice, we take pleasure in calling the attention of our readers to the last paragraph in the above article.—Ed.]

THE R. & O. COMPANY.

The following is a synopsis of the annual report to be read at the shareholder's annual meeting of the Richelieu & Ontario Navigation Company on Tuesday, February 17th:

Total earnings for the year 1884	$518,980 00
Expenses	419,336 75
Net profit for the year	99,643 25
Dividend paid	95,340 00
Balance reserved	$4,303 25

This makes the per centage of profits on gross proceeds 19 1 5 per cent.

The net loss from the wreck of the steamer St. Francis is $14,179.43. The company's claim for $40,000 on the insurance of the steamer Spartan had not yet been settled. The directors, however, have every confidence of a judgment being rendered favorable to their pretensions. The expenses of the operations of the past year—apparently $46,536.02 in excess of the previous one—are stated as partly caused through the company doing its own catering on the western line, instead of renting the restaurants on board. A sum of $54,100.59 is charged against revenue in order to carry out the various improvements on the boats and to keep the stock in first-class order. Contracts to the amount of $8,000, for lighting the steamers Quebec and Montreal by electricity and renewing part of the furniture of the Quebec, have been entered into. By changing the system of supervising the expenses of outfitting and improving some of the boilers of the boats, it is expected that a saving of $10,000 a year can be effected.—*Kingston News.*

The yacht building by C. & R. Poillon is to have a Providence pump brake yacht windlass from the American Ship Windlass Co., of Providence, R. I.

The schooner City of Sheboygan has been sold to Chicago parties for $8,000.

HISTORY OF LAKE NAVIGATION.

Written for the Marine Record:

BY J. W. HALL.

CHAPTER I.

It is a singular fact, in connection with the earliest records of the western lakes, that the name of the first vessel is nowhere to be found. The name of the Griffon, it is true, has been before the public for an indefinite length of time, the history of her construction, and representing her as the first vessel. Yet we have to go farther back than that and begin with the beginning. It therefore appears that in 1678, one year before the launch of the Griffon above the Falls, and at the mouth of Cuyuga creek, on the Niagara river, in the year above noted, a brigantine was built on Lake Ontario, for the use of the French on that lake, of 20 tons burden, but her name can not be found anywhere among the records. On the 18th of November, 1678, an expedition embarked on board this vessel, from Fort Frontenac (now Kingston,) under the immediate charge of the Sieur de la Motte, who was accompanied by Hennepin and sixteen men. The fall gales were then sweeping over the lake, and, fearing they might be driven on the south shore, they cautiously coasted along the Canadian border. After reaching as far west as the present site of Toronto, they sought refuge from a gale in the mouth of the river Humber. The brigantine grounded three times before reaching inside, and they were forced to throw overboard their ballast, and landed fourteen of the crew ere she was floated inside. The inhabitants of an Iroquois village near by were greatly surprised at the arrival of the strange visitors, and generously supplied them with provisions. The vessel narrowly escaped getting ice-bound for the winter, and had to be released by being cut out with axes. On December 5th they again proceeded on their voyage, with a favorable wind, steering for the south shore of the lake, weathering a boisterous night about twelve miles from the mouth of Niagara river. The day following they entered that river. The "Te Deum" was sung, chanted by the crew in recognition of their escape from the perils of a hazardous wintry voyage and their safe arrival in a commodious harbor. Near where they anchored were some huts occupied by Seneca Indians engaged in fishing, and the brigantine was hailed as the arrival of the "great wooden canoe." A party was now formed for exploring farther westward and to secure a site for building a vessel above Niagara Falls. On the 7th of December Hennepin, with five companions, ascended two leagues in a bark canoe, as far as the mountain ridge, where they were intercepted by rapids of great force, from the gorge above, and compelled to land on the Canadian shore. Again they pressed onward until reaching Queenstown,* and in due course the mouth of Chippewa creek, two miles above the Falls on the Canadian side, where they encamped for the night. They then returned to the brigantine and awaited a favorable wind to ascend the river.

On December 15th Hennepin took the helm, and with the aid of three men on shore towing, they reached the cliffs of the mountain ridge, and at Lewiston constructed a cabin to serve as a storehouse for the use of the expedition. On the 20th of December, and three days following, the ice came with such force as to threaten the safety of the vessel. By means of a capstan and line they succeeded in getting her to a place of safety. Beyond this point it was impossible to advance with the vessel. From this point the outfit and supplies for the vessel were taken over the Portage to above the Falls.

It is to be presumed, from the vague sketch given of the brigantine, that she entered upon her second trip from Frontenac for the Niagara river with the outfit above described, and that La Salle, with his lieutenant, Tonty, embarked on board of her. When near the mouth of the Genesee river he landed, by canoe, and went to Tagarondies, where he had visited ten years before. Reembarking in his vessel, LaSalle sailed westward toward Niagara. When about twenty-five miles east of that river, the wind having failed, he left the vessel, and, accompanied by Tonty, pursued his way to Niagara by land. He left instructions with the pilot that if the wind should blow from the northwest he should steer for the Niagara, and if from the southwest, he should seek shelter in the river of the Senecas.

On the 8th of January, 1679, the pilot and crew, while waiting for a favorable wind, left the vessel at anchor to sleep on shore. The wind rose so suddenly that they were unable to embark. The vessel dragged her anchor, struck a rock, and became a total wreck. This must have been at or near what is now known as Thirty-mile Point, being that distance east of Fort Niagara. By this misfortune a large amount of material designed for the construction of the Griffon, including several bark canoes, was lost. Nothing was saved but the anchors and cables. To replace the loss much valuable time would now be required, in transporting provisions and supplies for the use of the men employed in the work. LaSalle and Tonty reached the mouth of the Niagara on the evening after they had left the vessel.

The foregoing may be regarded as a history of the first vessel, which was nameless, and wrecked on her second trip, as the records show, and which antedates the Griffon, launched the following summer, and which soon after sailed for Green Bay.

*From this point history appears much at fault and it is to be presumed they could advance no farther by canoe and must have proceeded overland.—ED.

CHAPTER II.

The following account, in connection with the foregoing, is translated from an old French work, printed in 1688, entitled "An Account of the Discovery of a very great Country, Situated in America," by Father Hennepin, regarding the Griffon, will be read with interest in continuation of the movements of Father LaSalle, after leaving Lake Ontario to proceed with his contemplated arrangements to construct a vessel above the Falls:

"It now became necessary for LaSalle, in furtherance of his object, to construct a vessel above the Falls of Niagara, sufficiently large to transport the men and goods necessary to carry on a profitable trade with the savages residing on the western lakes. Prior or to this time he had dispatched a party of fifteen men, by canoes, to the upper lakes, with goods of the value of six or seven thousand francs. They had orders to establish friendly relations with the Indians, to collect provisions for the use of the contemplated expedition, and to gather furs for the return voyage. He also sent carpenters and other artisans, under charge of Sieur de la Motte, to build a fort at Niagara and a vessel above the Falls. The chief companions he selected to aid him in these undertakings were the Chevalier Henry de Tonty, the Sieur la Motte de Lussiere and Father Louis Hennepin.

Tonty was a Neapolitan by birth. Having fled from the revolution of Naples, he entered the French marine in 1668, in which he served four years. Having lost his right hand at Vintimille, by the bursting of a grenade, he supplied the deficiency by a metallic arrangement covered with a glove. This he used with marked effect in his encounters with the Indians, and thus obtained the soubriquet of the "Iron Hand." He joined LaSalle in his last voyage from France, in July 1678, and faithfully adhered to the fortunes of his chief until the death of the latter, in 1687. He was distinguished for zeal, courage and capability. He commanded the reinforcements which were brought from the west to aid DeNouville in his expedition against the Senecas, in 1687. He died at Fort St. Louis, on Mobile Bay, toward the close of the year 1704. His father was the author of the financial scheme called after him "Tontine," which was adopted in France, and subsequently introduced into America.

La Motte de Lussiere was a captain in the celebrated regiment of *Carigman-salieres*, and accompanied La Salle on his first visit to America. He proved, in the sequel, unfaithful to his commander by adhering to his enemies. After some experience, he found himself unfitted to endure the hardships of the new world, and gladly returned to civilized life.

Louis Hennepin was a Flemish Recollect, of the Franciscan order, and came to America in 1675, with Bishop Laval. He established a mission at Fort Frontenac, where he remained two and a half years. He then returned to Quebec, and after undergoing the necessary religious preparation, reascended the St. Lawrence and joined the expedition of La Salle. He was proud of his association with his distinguished chief, and devoted as much time to his service as he could well spare from the duties of his priestly office. He was ambitious and unscrupulous, and after the death of LaSalle endeavored to appropriate some of the honors, which the latter had acquired by his celebrated discoveries in the west.

So the above embassy left for their quarters on the banks of the Niagara river, above the Falls, which they reached on the 14th of January, 1679, thoroughly exhausted with their toilsome expedition. They were in some measure solaced on their arrival, by the abundance of white fish, just then in season. The water in which they were boiled, thickened into jelly, reminded them of the savory soups to which they had been accustomed in their father-land.

[*Continued next week.*]

HIGH INSURANCE VALUES.

In commenting on the present depression in the shipbuilding industry in England, the Marine Engineer, after much valuable statistical information, speaks as follows regarding the above subject:

A striking feature of the present commercial depression, is the marked reduction that has taken place in the estimated value of shipping. This is, perhaps, very natural under the circumstances, as the market price of an article does not depend so much on that which it costs, as upon that which it is capable of earning; and shipping, when laid up useless in the docks, is very much like a white elephant, and apt to eat its head off. Very often, owing to the modifications and improvements in competing vessels, others may become rapidly reduced in their earning value, and thus may become depreciated far below the original cost or present intrinsic value of the vessel. This is to be seen now in the marked reduction in the estimated gross values of vessels upon which insurances have to be effected. We do not think, however, that this is due altogether to the depreciated earning values of such vessels, but may be, very likely, consequent upon the present legislation against high insurances effected upon vessels. It is obvious that the policies, at the present high rates of premium, would go far to make a sinking fund as a margin against any possible loss resulting to the owners in the case of comparatively moderate estimated value. This, we think, is a move in the right direction, inasmuch as, in the case of respectable firms, who take all the care they can of their vessels, so as to provide, as far as possible, against ordinary risks, the saving so effected may be to their profit, and at any rate will cover them from loss, putting dishonest shipowners who may not be sorry to lose their vessels (if there are any such) out of the market altogether. This also is the best possible and practical reply to the animadversions cast upon the shipping trade as a whole by Mr. Chamberlain, when he set in movement his shipping bill for the protection of life and property.

THE WAR SHIPS OF THE FUTURE.

The London Post protests strongly against building any more iron-clads. It enumererates the disadvantages entailed on the British navy by the application of armor plates to the sides or batteries of the line-of-battle (or fighting) ships as follows: The expense of iron or steel armor adequate to resist the ever-increasing power of artillery is simply monstrous. All fire from shipboard is known to be more or less inaccurate, and the chances of a ship being struck in a vital part are very small indeed. But if the armor-plating of a ship's battery or turret be struck, and if it be not wholly impervious to the shell striking it, the effect of the blow is enhanced, and the shield actually becomes an instrument for rendering the blow more deadly to the gunners behind it.

A ship has a certain tonnage displacement, according to which her weights have to be arranged. Hence, every ounce of armor decreases the gun weight or coal weight that she can carry. Iron-clad fighting ships are necessarily of such a prodigous size that to possess a numerous navy and to conduct a great naval war on the principles that must be followed, if we are to maintain a dominant position on the seas, a war of aggression is a financial impossibility. It is almost certain that the bulk of the educated naval opinion of the present day favors the view that the skillful use of the ram will be the guiding object in future naval engagements. Now, a modern ironclad is about as handy an instrument for use in ramming maneuvers as—well, let us say an old cow at a pump Next to the ram, the torpedo, or torpedo vessel, is probably the most efficient naval fighting weapon. But an enormous iron-clad is singularly open to attacks from torpedoes, and its size gives it no particular advantage in directing such attacks.

The great size, draught and cost of iron-clads inevitably tend to reduce the feeling which should be uppermost in any captain's mind, that he "can go anywhere and do anything" with his ship. In fact, it renders him cautious—a deadly quality for naval minds. What, then, should we substitute for these gigantic armored floating machines? To us it appears that the type of a first-class fighting ship which most nearly meets the requirements of the day is as follows: An unarmored corvette without sails, of 2,000 to 4,000 tons displacement, possessing good sea qualities, an armament of maximum weight and power, an underwater steel protecting deck, great capacity of coal stowage, handiness, facilities for ramming and torpedoing, and as much speed as can be given her. Such vessels would cost comparatively small sums, and we could maintain many squadrons of them.

"IMPRESSIONS" CORRECTED

Some time since the Manton Windlass & Steam Steerer Co. issued a pamphlet in which they published letters from certain ship owners, which would lead the public to believe that they were the makers of the principal steam windlasses now in use, and as the publication of these letters were calculated to give a very erroneous impression, the American Ship Windlass Co. wrote to the parties who had furnished these letters, and the following are some of the replies:

Clyde's Coastwise and West India Steam Lines, W. P. Clyde & Co., 35 Broadway,
NEW YORK, Sept. 29, 1884.

American Ship Windlass Co., Providence, R. I.

GENTLEMEN:—In answer to your inquiry, would say that on April 19, 1883, we gave to Mr Joseph P. Manton a certificate in regard to the merits of windlasses with worm and worm-gearing, actuated by steam. At the time we gave it we supposed him to represent your company. We have always used your steam windlasses, and consider them very superior and efficient machinery.

Yours truly,
(Signed) WM. P. CLYDE & Co.

From the above it will be seen that the Messrs. Clyde "supposed" Joseph P. Manton to represent the American Ship Windlass Co., when the fact was that he has not been connected with it for years, and when he left it sold out all his rights in it. Since that time these windlasses have been so much improved that they bear but a slight resemblance, in details of work, power, efficiency and durability, to the machines made when Joseph P. Manton was connected with the original company, which has won for itself a world-wide reputation for reliability of their workmanship and the perfection of all goods manufactured by them.

From the Mallory line a similar letter had been obtained and published by J. P. Manton. The following letter explains:

Steamship lines for Texas and Florida, C. H. Mallory & Co., Gen. Agents.
NEW YORK, Feb. 20, 1884.

American Ship Windlass Co., Providence, R.I.:

In answer to your inquiry relative to our endorsement of the Manton windlass, we have to say that we endorsed letter of Pacific Mail S.S. Co. to J. P. Manton, dated April 24, 1883, under the impression that J. P. Manton was the manufacturer and patantee of the windlass.

All windlasses used by us have been manufactured by the American Ship Windlass Co., and, supposing that J. P. Manton was their agent, we took pleasure in certifying to their usefulness.

Yours truly,
(Signed.) C. H. MALLORY & Co.

The Messrs. Mallory evidently "supposed" J. P. Manton was the agent of the American Ship Windlass Co., which was not the fact.

The following letter also conveys its import.

New York, Havana & Mexican Mail Steamship Line, F. Alexandre & Sons.
NEW YORK, Sept. 29, 1884.

American Ship Windlass Co.,

GENTLEMEN:—We note in a circular of the Manton Windlass & Steam Steering Co., a note recommending a plan for a windlass, which is signed by F. Alexandre & Sons. We do not remember having signed this document, but if we did we must have done so thinking that it was for your company, as we are using your windlasses on our ships.

Yours truly,
(Signed.) F. ALEXANDRE & SONS.

Even if the Messrs. Alexandre & Sons did sign some document for J. P. Manton, they did so believing it to be in commendation of the windlass made by the American Ship Windlass Co., and not by the Manton Windlass & Steam Steerer Co.

The ship Great Admiral, which has just arrived from China, is to replace her wood windlass with a Providence patent capstan windlass. The windlass will be provided with Southard's patent messenger chain arrangement for driving the windlass from the donkey engine.

The schooner building by T. J. Southard & Son, at Richmond, Me., will also have the same style of windlass as above, and main deck capstan. The American Ship Windlass Co. are the sole manufacturers of the Southard patent messenger chain attachment. This appliance requires no extra gearing and can be used on any class of vessel using a donkey engine. Many of our sailing coasters are provided with donkey engines, and, by the adoption of the messenger chain attachment, they can handle their anchors and chains as readily as a full-powered steam vessel.